

CLAIMS

1. A piezoelectric loudspeaker comprising:

a diaphragm;

5 a first piezoelectric material provided in a first area of the diaphragm; and

a second piezoelectric material provided in a second area of the diaphragm different from the first area, second piezoelectric material having a sound reproduction frequency range different from band from a sound reproduction frequency range of the first area.

10

2. The piezoelectric loudspeaker according to claim 1, wherein the first and second piezoelectric materials include first and second piezoelectric thin films, respectively.

15

3. The piezoelectric loudspeaker according to claim 1, wherein the first and second areas have sizes different from each other.

4. The piezoelectric loudspeaker according to claim 1, wherein the first and second piezoelectric materials have sizes different from each other.

20

5. The piezoelectric loudspeaker according to claim 1, wherein the first and second piezoelectric materials are provided on a first face of the diaphragm.

25

6. The piezoelectric loudspeaker according to claim 5, further comprising a frame body provided on a second face of the diaphragm and provided around the first and second areas.

7. A loudspeaker system comprising:

the piezoelectric loudspeaker according to any one of claims 1 to 6; and

5 another loudspeaker having a sound reproduction frequency range lower than the sound reproduction frequency ranges of the first and second areas of the piezoelectric loudspeaker.

8. An electronic device comprising:

10 the piezoelectric loudspeaker according to any one of claims 1 to 6; and

a sound source connected to the piezoelectric loudspeaker.